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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,946	03/26/2004	Mark Miller	24063/04061	9887
24024 7590 09/13/2007 CALFEE HALTER & GRISWOLD, LLP 800 SUPERIOR AVENUE SUITE 1400 CLEVELAND, OH 44114			EXAMINER PAUL, DISLER	
			ART UNIT 2615	PAPER NUMBER
			MAIL DATE 09/13/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/810,946	<b>Applicant(s)</b> MILLER ET AL.	
	<b>Examiner</b> Disler Paul	<b>Art Unit</b> 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-27 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/2/04</u> . | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Claims 10,26 are recite the limitation "cover" in voice amplifier. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4,6,9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Jennings et al.(US 4,400,591).

Re claim 1, Jennings et al. disclose of the voice amplifier for attachment to a mask (fig.1-3 (10)), the voice amplifier comprising: a sound reflector having a reflector surface that faces outwardly of the mask when the voice amplifier is attached to the mask (fig.2 (14 wt (surround shielding sidewall)); col.3 line 33-35); a base connected with the sound reflector and a speaker supported on the base and facing inwards towards the reflector surface (fig.2 (18,14,26); col.2 line 27-29).

Art Unit: 2615

Re claim 2, the voice amplifier according to claim 1 wherein the sound reflector supports the base and the speaker on the mask (fig.2 (14)/ the surround helmet sidewall portions is incorporate the (26,18)).

Re claim 3, the voice amplifier according to claim 1 wherein the speaker has a conical configuration and tapering radially inward in a direction away from the mask (fig.2 (26), cones shape and away wt (10)), But, Jennings et al. is silent in regard to the specific of having the configuration being centered on an axis, however, he did disclose of having such a conical configuration (fig.1 (26), thus, it is inherent of the existence of the configuration being centered on an axis.

Re claim 4, the voice amplifier according to claim 1 wherein the sound reflector and the base are spaced apart thereby defining a peripheral gap between them, sound waves emitted from the speaker being reflected off the sound reflector and exiting the voice amplifier through the peripheral gap (fig.2 (20); col.2 line 35-37).

Re claim 6, the voice amplifier according to claim 1 with the sound reflector (fig.2); However, Jennings et al. is silent in regard to the specific wherein the sound waves that emanate from the speaker inward towards the sound reflector, reflect off the sound reflector

Art Unit: 2615

and exit the voice amplifier through an outer peripheral gap between the base and the perimeter of the sound reflector and thence travel outwardly from the mask. However, Jennings et al. did disclose of having the baffle incorporated to prevent having feedback and further of having the port opening for enabling the surrounding sound to being able to exit the mask (col.2 line 20-25; col.3 line 33-35), thus with the above disclosure it is inherent of the ability of Jennings et al. invention being able to have the sound waves that emanate from the speaker inward towards the sound reflector, reflect off the sound reflector and exit the voice amplifier through an outer peripheral gap between the base and the perimeter of the sound reflector and thence travel outwardly from the mask.

Re claim 9, the voice amplifier as set forth in claim 1 including a sound reflector having a reflector surface that faces outwardly of the mask when the voice amplifier is attached to the mask, said base being connected with said sound reflector; and said speaker being supported on said base and facing inwards towards said reflector surface (fig.wt (14,18,26) and see claim 1 rejection).

Re claim 10, the voice amplifier as set forth in claim 1 wherein comprising a cover has an outer surface portion facing away from the mask (fig.2 (24); col.2 line 25-26), said voice amplifier further

Art Unit: 2615

comprising a circuit board located within the housing at a location not between the speaker and the outer surface portion of the cover (fig.1 wt (18,30); not between (26,24) .

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-8,14,17-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jennings et al.(US 4,400,591) and further in view of Bloomfield (5,224,474).

Re claim 7, Jennings et al. disclose of the voice amplifier according to claim 1, But Jennings et al. fail to disclose of the voice amplifier comprising a switch and a movable switch actuator mounted on the front of the voice amplifier. But, Bloomfield did disclose of a voice amplifier wherein the concept of having a switch and a movable switch actuator mounted on the front of the voice amplifier (fig.1-2 wt (15, 3-3); col.4 line 35-45) for the purpose of being able to preserve battery life. Thus, taking the combined teaching of Jennings et al. and Bloomfield as a whole, it would have

been obvious for one of the ordinary skill in the art to have incorporating the having a switch and a movable switch actuator mounted on the front of the voice for the purpose of being able to preserve battery life.

Re claim 8,14 have been analyzed and rejected with respect to claim 8 above.

Re claim 17, the voice amplifier according to claim 16 further comprising an on/off switch assembly including a magnetic actuator that is located on the outer surface of the cover facing away from the mask (see claim 7 rejection).

Re claim 18, the voice amplifier according to claim 17 wherein the on/off switch assembly also includes a magnetically actuated switch located on the circuit board inward of the cover (see claim 7 rejection).

Re claim 19, Jennings et al. disclose of the voice amplifier for attachment to a mask, the voice amplifier comprising (fig.1-2): a housing including a base and a cover and an amplifier inside the housing for amplifying a signal received from a microphone and a speaker connected with the amplifier inside the housing, the speaker converting the signal received from the amplifier into sound waves

(fig.2-3 wt (26,28)); But, Jennings et al. fail to disclose of the on/off switch assembly including a magnetically actuatable switch and a magnetic actuator, However, Bloomfield did disclose of a voice amplifier wherein the concept of having a switch and a magnetic actuator on the front of the voice amplifier (fig.1-2 wt (15, 3-3); col.4 line 35-45) for the purpose of being able to preserve battery life. Thus, taking the combined teaching of Jennings et al. and Bloomfield as a whole, it would have been obvious for one of the ordinary skill in the art to have incorporating the having a switch and a magnetic switch on the front of the voice for the purpose of being able to preserve battery life. The combined teaching of Jennings et al. and Bloomfield as a whole, would have further incorporate the amplifier being controlled by the magnetically actuatable switch (col.4 line 35-43; fig.1-2).

Re claim 20, the voice amplifier according to claim 19 wherein the magnetic actuator is supported on a movable member on the cover for movement between a first position and a second position, and the magnetically actuated switch is located on a circuit board inside the housing, the magnetically actuated switch moving between an on condition and an off condition in response to movement of the magnetic actuator between the first position and the second position (Bloomfield, fig.1-2; col.4 line 35-44).



Re claim 21, the voice amplifier according to claim 20 wherein the magnetically actuated switch is a reed switch (col.3 line 1-4).

Re claim 22, the voice amplifier according to claim 19 wherein the magnetic actuator is pivotable within a range of movement between an on position and an off position and is mounted on the front of the voice amplifier (col.4 line 35-44).

Re claim 23, the voice amplifier according to claim 19 wherein the magnetic actuator is mounted on the front of the voice amplifier (fig.1,5).

Re claim 24, has been analyzed and rejected with respect to claim 20.

Re claim 25, the voice amplifier as set forth in claim 19 including a sound reflector having a reflector surface that faces outwardly of the mask when the voice amplifier is attached to the mask, said base being connected with said sound reflector; and said speaker being supported on said base and facing inwards towards said reflector surface (see claim 9 rejection).

Re claim 26, the voice amplifier as set forth in claim 19 comprising a sound reflector, said base being connected with the sound reflector, said cover having an outer surface portion facing away from the mask, said voice amplifier further comprising a circuit board located within the housing at a location not between the speaker and the outer surface portion of the cover (see claim 10 rejection).

6. Claims 12-13,15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jennings et al.(US 4,400,591) and further in view of Wang (US 7,006,648 B2).

Re claim 12, the voice amplifier for attachment to a mask, the voice amplifier comprising: a base; a speaker supported on the base (fig.1, see claim 1); the speaker having a wide end and a narrow end (fig.1 (26)). But, jennnings et al. fail to disclose of a cover connected with the base to form a housing enclosing the speaker, the cover having a front wall with a front surface facing away from the mask when the voice amplifier is attached to the mask the specific of having the narrow end of the speaker being located closer to the front wall of the cover than the wide end, the cover front wall having a profile that follows the profile of the speaker in a direction from the narrow end of the speaker to the wide end of the speaker. However, Wang disclose of a system wherein the similar concept of having a cover enclosing the speaker and with the cover front wall has a profile that follows the profile of the speaker in a direction from

Art Unit: 2615

the narrow end of the speaker to the wide end of the speaker and with narrow of speaker closer to front wall (fig.1-5; col.5 line 1-15, (22,24,21)) for the purpose of affecting the quality of sound produced of low frequency and handling backward waves. Thus, taking the combined teaching of Jennings and now Wang as a whole, it would have been obvious for one of the ordinary skill in the art to have incorporated the similar concept of having a cover enclosing the speaker and with the cover front wall has a profile that follows the profile of the speaker in a direction from the narrow end of the speaker to the wide end of the speaker and narrow band closer to front wall for the purpose of affecting the quality of sound produced of low frequency and handling backward waves.

Re claim 13, the voice amplifier as set forth in claim 12 wherein the speaker has a conical or frustoconical configuration centered on an axis (see claim 3 rejection), jennings et al. would have further incorporate of the cover front wall has a profile that mimics the speaker configuration above the axis of the speaker (see claim 12 rejection).

Re claim 15, the voice amplifier for attachment to a mask, the voice amplifier (fig.1-2) comprising: a sound reflector; a base connected with the sound reflector (fig.1 (14,18,)); a cover having an outer surface portion facing away from the mask, the cover being attached to the base to form with the base a housing; a speaker located within the housing (see claim 12 rejection); and Jennings would have incorporate the having a circuit board located within the housing at a location not between the speaker and the outer surface portion of the cover (fig.1 wt (18,30); not between (26,24)).

Re claim 16, the voice amplifier according to claim 15 wherein the speaker faces toward the sound reflector and has a portion closest to the sound reflector (fig.2 wt (26 larger portion,24)), and the circuit board is located within the housing at a location outward of the speaker portion closest to the sound reflector (see claim 15 rejection).

***Allowable Subject Matter***

7. Claim 5,11,27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DP

  
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